

CLAIMS

1. A method of operating a mobile wireless service, the method comprising causing a network controller to broadcast to all mobile stations in a cell an offer of service; requesting from each mobile station an indication of interest in the offered service; receiving data relating to each interested mobile station enabling the position or received signal quality of each mobile station within the cell to be determined; analysing the arrangement of interested mobile stations in one or more predefined areas within the cell; and requiring each interested mobile station which is out of range of a subsequent broadcast transmission to use an alternative mechanism to receive the service.
2. A method according to claim 1, wherein the range of the subsequent broadcast is determined by one of received power level or received quality at the mobile station of a notification message sent from the base transceiver station to the mobile station.
3. A method according to claim 1 or claim 2, further comprising broadcasting at reduced power to the mobiles within range.
- 20 4. A method according to claim 1 or claim 2, further comprising broadcasting at an increased or decreased coding rate to the mobiles within range.
5. A method according to claim 4, further comprising repeating the broadcast a number of times.
- 25 6. A method according to any preceding claim, wherein the network controller broadcasts an offer of service using an MBMS channel and the mobile stations respond using a an existing random access channel (RACH).
- 30 7. A method according to any of claims 1 to 5, wherein the network controller broadcasts an offer of service using an MBMS channel and the mobile stations respond using a new MBMS RACH (MRACH).

8. A method according to any preceding claim, wherein both position and received signal quality data are received from each interested mobile station.

5 9. A method according to any preceding claim, wherein the network controller broadcasts the determined levels and each interested mobile station tests these against stored levels to calculate whether it requires a ptcp channel.

10 10. A method according to any preceding claim, wherein data enabling the position or received signal quality to be determined for any mobile station which is not idle is transferred, from a network controller via which that mobile station is connected, to the network controller broadcasting the offer of service.

15 11. A method according to claim 10, wherein the service is a UMTS service and the data is transferred from a serving RNC to a drift RNC via an interface link.

12. A method according to claim 11, wherein the data is added to a linking message.

20 13. A method according to claim 11, wherein the data is transferred on demand.

14. A method according to any preceding claim, wherein a change between a broadcast transmission and an alternative mechanism is made in accordance with a hysteresis diagram